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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,185	07/29/2003	Hidefumi Yoshizoe	NEC 219824	7204
27667	7590	01/18/2006	EXAMINER	
HAYES, SOLOWAY P.C. 3450 E. SUNRISE DRIVE, SUITE 140 TUCSON, AZ 85718			SCHECHTER, ANDREW M	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/629,185

Applicant(s)

YOSHIZOE, HIDEFUMI

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-24 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 2,5,7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10 November 2006 have been fully considered but they are not persuasive.

The applicant argues that the amended limitation of "an unobstructed straight line air outlet path" is not disclosed by *Furushima, Sakai*, and *Lee*. This is not persuasive. While this appears to distinguish the invention from that of *Furushima* and *Sakai*, it does not do so in the case of *Lee*, as discussed below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lee et al.*, US 2001/0022645.

Lee discloses [see Fig. 9, for instance] a method of manufacturing a liquid crystal display panel, the method comprising: preparing a first substrate [1] and a second substrate [201]; forming a seal member [210], an auxiliary member [220, etc.], and air outlet forming members [vertical extensions of 210 at bottom of Fig. 9B] on one of said substrates, wherein said seal member formed an internal space [inside 210] and has an

injection inlet [between the air outlet forming members] for liquid crystal injection, said auxiliary member is arrayed around said seal member, and said air outlet forming member is connected to said injection inlet and extended toward a peripheral end of said panel; attaching said first substrate to said second substrate with said seal member and said auxiliary member to form said panel [see Fig. 9A]; positioning a cut line between said seal member and said auxiliary member, cutting said panel along said cut line, and injecting liquid crystal through said injection inlet [paragraphs 0013, 0014, 0056, etc.].

Lee may or may not disclose the limitation that the air outlet forming members are formed with said auxiliary member. It would have been obvious to one of ordinary skill in the art at the time of the invention to make these two features at the same time, motivated by the efficiency of making them using a single production step.

Lee further discloses [see bottom of Fig. 9B and right of Fig. 9C] the amended limitation that said seal member, the auxiliary member and the air outlet are formed such that an unobstructed straight line air outlet path between the injection inlet and a peripheral of the LCD panel is created [in Fig. 9B, a vertical path straight down the center of the opening in the middle of the figure; note that the hardening agent 242 is placed after the air is forced out].

Claim 11 is therefore unpatentable.

An air outlet auxiliary member [upside down “u” shapes in Fig. 9B] is further formed on one of said substrates within said air outlet forming members. Claim 12 is therefore unpatentable.

4. Claims 1, 3, 4, 6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lee et al.*, US 2001/0022645 as applied to claims 11 and 12 above, in view of *Ishiwata et al.*, U.S. Patent No. 5,858,482.

Regarding claims 11 and 12, it might be argued that *Lee* does not explicitly show the position of a cut line in Fig. 9B, so it does not disclose the cut line being between the seal member and the auxiliary member. The examiner does not agree, since the auxiliary member is located in the unneeded “edges of the attached substrates” which are “cut away” [paragraph 0056]. However, to forestall this argument, the examiner notes that *Ishiwata* discloses [see Fig. 3] a cut line “L” disposed near the end of the equivalent air outlet forming members (which would be between the seal member and the auxiliary member in *Lee*), and it would have been obvious to one of ordinary skill in the art at the time of the invention to do so in the method of *Lee*, motivated by the desire “to expose the injection port at the cut edges of the substrates” [col. 8, lines 1-6], thus making an accessible injection port, and to make the non-display area of the LCD as small as possible. Claims 11 and 12 are therefore unpatentable.

Considering the additional limitations of claim 1 over those of claim 12, claim 1 recites cutting said panel along said scribe line to traverse said air outlet forming members. Since *Lee* is silent on the exact location of its scribe line, as discussed in the above paragraph, it does not disclose this limitation of claim 1.

Ishiwata discloses [see Fig. 3, for instance] cutting the panel along a cut line (or scribe line) to traverse the air outlet forming members [the horizontal sections of 12 to the right]. (The examiner understands the term “traverse” to include crossing at the

edge of the members as shown in Fig. 3.) As discussed above, it would have been obvious to one of ordinary skill in the art at the time of the invention to cut the panel so in the method of *Lee*, motivated by the desire "to expose the injection port at the cut edges of the substrates" [col. 8, lines 1-6], thus making an accessible injection port, and to make the non-display area of the LCD as small as possible. Claim 1 is therefore unpatentable.

The air outlet forming member is aligned parallel to said air outlet auxiliary member in order to maintain a constant gap therebetween, so claim 3 is also unpatentable. The air outlet auxiliary member and the air outlet forming member extend toward the peripheral end of the panel, so claim 4 is also unpatentable. There are a plurality of injection inlets and air outlets, so claim 9 is also unpatentable. The method is used to make a liquid crystal display panel, so claim 10 is also unpatentable.

Lee discloses [see claims 12 and 13, for instance] that the seal member, the auxiliary member, the air outlet auxiliary member, and the air outlet forming member are all formed using a dispenser-print method. It does not explicitly disclose that they are all simultaneously formed and made of the same material. It would have been obvious to one of ordinary skill in the art at the time of the invention to form them all simultaneously of the same material, motivated by the desire to avoid the unnecessary additional manufacturing steps involved in separately forming these members. Claim 6 is therefore unpatentable.

Allowable Subject Matter

5. Claims 2, 5, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 13-24 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the method of claim 2, in particular the additional limitation that the air outlet auxiliary member is positioned between the cut line and the peripheral end of the panel in order not to be cut when the panel is cut off. Claim 2 would therefore be allowed if rewritten appropriately.

Similarly, the prior art does not disclose the method of claim 13, which is the previous claim 2 written in independent form, including the above-discussed limitation. Claim 13 is therefore allowed, as are its dependent claims 14-17.

The prior art does not disclose the method of claim 5, in particular the additional limitation that the auxiliary member, the air outlet auxiliary member and the air outlet forming member formed at an external domain of the cut line, are all continuously formed as dashed lines. Claim 5 would therefore be allowed if rewritten appropriately.

Similarly, the prior art does not disclose the method of claim 18, which is the previous claim 5 written in independent form, including the above-discussed limitation. Claim 18 is therefore allowed, as are its dependent claims 19-22.

The prior art does not disclose the method of claim 7, in particular the additional limitation that a gap between the air outlet auxiliary member and the air outlet forming member is 2 mm or more but not more than 7 mm. Claim 7 would therefore be allowed if rewritten appropriately.

Similarly, the prior art does not disclose the method of claim 23, which is the previous claim 7 written in independent form, including the above-discussed limitation. Claim 23 is therefore allowed.

The prior art does not disclose the method of claim 8, in particular the additional limitation that a gap between the peripheral end of the panel and the distal ends of both the air outlet auxiliary member and the air outlet forming member is not more than 3 mm. Claim 8 would therefore be allowed if rewritten appropriately.

Similarly, the prior art does not disclose the method of claim 24, which is the previous claim 8 written in independent form, including the above-discussed limitation. Claim 24 is therefore allowed.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrew Schechter
Primary Examiner
Technology Center 2800
13 January 2006